

What is claimed is:

1. A liquid crystal display device comprising first and second transparent substrates and a liquid crystal layer which is sandwiched between the first and second substrates, wherein the first substrate includes a plurality of video signal lines, a plurality of scanning signal lines and a plurality of pixel regions which are formed as regions surrounded by the video signal lines and the scanning signal lines, each pixel region includes at least one active element and one pixel electrode, and color filters are formed between the pixel electrodes and the liquid crystal layer,

the improvement being characterized in that a boundary between color filters of pixels which are arranged close to each other in the extending direction of the scanning signal lines is positioned on the video signal line and, at the same time, a light shielding layer is formed between the color filter and the liquid crystal layer such that the light shielding layer is superposed on the boundary portion and the video signal line.

2. A liquid crystal display device according to claim 1, wherein an organic flattened film is formed between the light shielding layer and the color filters.

3. A liquid crystal display device according to claim 1, wherein common electrodes and common signal lines which also function as common electrodes are formed on the color filters of the substrate on which the color filters are formed.

4.A liquid crystal display device according to claim 2, wherein common electrodes and common signal lines which also function as common electrodes are formed on the organic flattened film of the substrate on which the color filters are formed.

5.A liquid crystal display device according to claim 1, wherein common electrodes and common signal lines which also function as common electrodes are formed between the color filters of the substrate on which the color filters are formed and the liquid crystal layer, and the common signal lines also function as the light shielding layers.

6.A liquid crystal display device according to claim 1, wherein the common signal lines cover the light shielding layers above the video signal lines.

7. A liquid crystal display device comprising first and second transparent substrates and a liquid crystal layer which is sandwiched between the first and second substrates, wherein the first substrate includes a plurality of video signal lines, a plurality of scanning signal lines and a plurality of pixel regions which are formed as regions surrounded by the video signal lines and the scanning signal lines, each pixel region includes at least one active element, one pixel electrode and one common electrode, and color filters are formed between the pixel electrodes and the liquid crystal layer,

the improvement being characterized in that the common

electrodes are formed as layers above the color filters and the pixel electrodes are formed as layers below the color filters, and the color filters are formed to be superposed on at least the entire surfaces of the pixel electrodes in the pixel regions.

8.A liquid crystal display device according to claim 7, wherein an organic flattened film is formed between the color filters and the common electrodes.

9.A liquid crystal display device according to claim 7 or claim 8, wherein the pixel electrodes have a planar shape and the common electrodes have linear regions.

10.A liquid crystal display device according to claim 7, wherein portions of the common electrodes are arranged to be superposed on the video signal lines and also function as the common signal lines.

11.A liquid crystal display device according to claim 7, wherein portions of the common electrodes are arranged to be superposed on the scanning signal lines and also function as the common signal lines.

12.A liquid crystal display device according to claim 7, wherein portions of the common electrodes are arranged to be superposed on the scanning signal lines and the video signal lines and also function as the common signal lines.

13. A liquid crystal display device according to claim 10, wherein the common signal lines which are formed of the

common electrodes have at least end surfaces thereof superposed on the pixel electrodes.

14. A liquid crystal display device according to claim 10, wherein the common signal lines which are formed of the common electrodes are made of transparent conductive bodies and have light shielding layers on the active elements.

15. A liquid crystal display device according to claim 10, wherein the common signal lines which are formed of the common electrodes are made of metal.

16. A liquid crystal display device according to claim 7, wherein the pixel electrodes are formed of transparent electrodes.

17. A liquid crystal display device which includes first and second transparent substrates and a liquid crystal layer which is sandwiched between the first and second substrates, wherein the first substrate includes a plurality of video signal lines, a plurality of scanning signal lines and a plurality of pixel regions which are formed as regions surrounded by the video signal lines and the scanning signal lines, each pixel region includes at least one active element, one pixel electrode and one common electrode, and color filters are formed between the pixel electrodes and the liquid crystal layer,

the improvement being characterized in that the common electrodes and the pixel electrodes are formed as layers below the color filters and the color filters are formed to be

superposed on at least the entire surfaces of the pixel electrodes and of the common electrodes in the pixel regions.

18. A liquid crystal display device according to claim 17, wherein the common electrodes are made of transparent conductive bodies and formed as layers disposed below the pixel electrodes by way of a gate insulation film.

19. A liquid crystal display device according to claim 17, wherein the common electrodes are formed in a planar shape and the pixel electrodes have linear regions.

20. A liquid crystal display device according to claim 17, wherein the liquid crystal display device includes common signal lines which are formed on the same layer as the scanning signal lines and are spaced apart from the scanning signal lines, and the common signal lines have regions where the common signal lines and the common electrodes are superposed with each other.

21. A liquid crystal display device according to claim 17, wherein a boundary of the color filters between neighboring pixels in the extending direction of the scanning signal lines is positioned on the video signal line, and a light shielding layer is formed between the color filters and the liquid crystal layer such that the light shielding layer is superposed on the boundary portion and the video signal line.

22. A liquid crystal display device which includes first and second transparent substrates and a liquid crystal layer which is sandwiched between the first and second substrates,

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wherein common electrodes are provided to at least one of the first and second substrates, the first substrate includes a plurality of video signal lines, a plurality of scanning signal lines and a plurality of pixel regions which are formed as regions surrounded by the video signal lines and the scanning signal lines, each pixel region includes at least one active element and one pixel electrode, and color filter layers are formed between the pixel electrodes and the liquid crystal layer,

the improvement being characterized in that the color filters are formed between the pixel electrodes and the common electrodes, and a driving electric field for the liquid crystal layer is generated along a path which passes both of the liquid crystal layer and the color filter between the pixel electrode and the common electrode.

23. A liquid crystal display device according to claim 22, wherein the common electrodes are formed between the color filters and the liquid crystal layer, the common electrodes have linear regions and regions which are formed on the video signal lines in a superposed manner, the pixel electrodes are formed below the color filters, and the pixel electrodes and the color filters are brought into contact with each other.

24. A liquid crystal display device according to claim 22, wherein the pixel electrodes and the color filters are brought into contact with each other.

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25. A liquid crystal display device according to claim 22, wherein a boundary of the color filters of neighboring pixels in the extending direction of the scanning signal lines is positioned on the video signal line, and the neighboring color filters are superposed on the boundary portion, and an organic flattened film is formed on the color filters.

26. A liquid crystal display device according to claim 22, wherein a boundary of the color filters of neighboring pixels in the extending direction of the scanning signal lines is positioned on the video signal line, and the neighboring color filters on the boundary portion are spaced apart from each other due to an insulating organic transparent film.

27. A liquid crystal display device according to claim 22, wherein the color filters are integrally formed of the neighboring pixels in the extending direction of the video signal lines, and an inorganic insulation film is formed between the active elements and the color filters.

28. A liquid crystal display device according to claim 22, wherein a boundary of the color filters between neighboring pixels in the extending direction of the video signal lines is positioned on the scanning signal line, and the neighboring color filters on the boundary portion are spaced apart from each other due to an insulating organic transparent film.

29. A liquid crystal display device according to claim 22, wherein an organic flattened film is formed on the color

filters.

30. A liquid crystal display device according to claim 22, wherein the color filters have conductivity.

31. A liquid crystal display device according to claim 30, wherein the resistivity used as an index of the conductivity is set to not more than 10^{14} Ωcm .

32. A liquid crystal display device according to claim 30, wherein the resistivity used as an index of the conductivity is set to not more than 10^{10} Ωcm .

33. A liquid crystal display device according to claim 22, wherein the color filters contain ionic components.

34. A liquid crystal display device comprising first and second transparent substrates and a liquid crystal layer which is sandwiched between the first and second substrates, wherein the first substrate includes a plurality of video signal lines, a plurality of scanning signal lines and pixel regions which are formed as regions surrounded by respective neighboring video signal lines and scanning signal lines, and each pixel region includes at least one active element and one pixel electrode,

light shielding layers and the common electrodes are laminated to the video signal lines by way of an insulation film, the light shielding layers are made of metal, and the common electrodes are made of a transparent conductive body.

35. A liquid crystal display device according to claim

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34, wherein portions of the common electrodes which are disposed above the video signal lines have a width wider than a width of the light shielding layers.

36. A liquid crystal display device according to claim 34, wherein the common electrodes are laminated to upper layers of the light shielding layers.

37. A liquid crystal display device according to claim 34, wherein the common electrodes are laminated to lower layers of the light shielding layers.

38. A liquid crystal display device according to claim 34, wherein the common electrodes are superposed on the light shielding layers above the video signal lines and the common electrodes are not superposed on the light shielding layers in the display regions between the video signal lines.

39. A liquid crystal display device according to claim 34, wherein the pixel electrodes are formed in a comb shape.

40. A liquid crystal display device according to claim 34, wherein the pixel electrodes are formed in a comb shape and are formed below the insulation films.

41. A liquid crystal display device according to claim 34, wherein the insulation films are formed of color filters and are positioned along the video signal lines so as to define boundary portions.

42. A liquid crystal display device according to claims 34, wherein the insulation films are formed of organic films.

43. A liquid crystal display device according to claim 34, wherein the light shielding layers are also formed on the scanning signal lines.

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